

WHAT IS CLAIMED IS:

1. A coal additive for reducing a pollutant emission, the additive comprising:
 - 5 a plant oil extract;
 - an antioxidant; and
 - a thermal stabilizer.
2. The coal additive of claim 1, wherein the plant oil extract comprises an oil extract of a plant of the *Leguminosae* family.
3. The coal additive of claim 1, wherein the plant oil extract is selected
10 from the group consisting of oil extract of vetch and oil extract of barley.
4. The coal additive of claim 1, wherein the plant oil extract comprises chlorophyll.
5. The coal additive of claim 1, wherein the antioxidant comprises β -carotene.
- 15 6. The coal additive of claim 1, wherein the thermal stabilizer comprises jojoba oil.
7. The coal additive of claim 1, wherein the thermal stabilizer comprises an ester of a C20-C22 straight chain monounsaturated carboxylic acid.
8. The coal additive of claim 1, wherein the plant oil extract comprises oil
20 extract of vetch, wherein the antioxidant comprises β -carotene, and wherein the thermal stabilizer comprises jojoba oil.
9. The coal additive of claim 1, further comprising a diluent.
10. The coal additive of claim 9, wherein the diluent is selected from the group consisting of toluene, gasoline, diesel fuel, jet fuel, and mixtures thereof.
- 25 11. The coal additive of claim 1, further comprising an oxygenate.
12. The coal additive of claim 11, wherein the oxygenate is selected from the group consisting of methanol, ethanol, methyl tertiary butyl ether, ethyl tertiary butyl ether, and tertiary amyl methyl ether, and mixtures thereof.
13. The coal additive of claim 1, further comprising at least one additional
30 additive selected from the group consisting of detergents, corrosion inhibitors, metal

deactivators, dispersants, antioxidants, demulsifiers, carrier fluids, solvents, emission reduction additives, and mixtures thereof.

14. The coal additive of claim 8, wherein a ratio of grams of plant oil extract of vetch to grams of β -carotene in the additive is from about 0.25:1 to about 4:1, wherein a ratio of grams of oil extract of vetch to milliliters jojoba oil in the additive is from about 0.25:1 to about 4:1, and wherein a ratio of milliliters jojoba oil to grams of β -carotene in the additive is from about 0.25:1 to about 4:1.

15. The coal additive of claim 8, wherein a ratio of grams of plant oil extract of vetch to grams of β -carotene in the additive is from about 4:3 to about 2:1, wherein a ratio of grams of oil extract of vetch to milliliters jojoba oil in the additive is from about 2:1 to about 3:1, and wherein a ratio of milliliters jojoba oil to grams of β -carotene in the additive is from about 1:3 to about 4:3.

16. The coal additive of claim 8, wherein a ratio of grams of plant oil extract of vetch to grams of β -carotene in the additive is about 5:3, wherein a ratio of grams of oil extract of vetch to milliliters jojoba oil in the additive is about 2.5:1, and wherein a ratio of milliliters jojoba oil to grams of β -carotene in the additive is about 2:3.

17. The coal additive of claim 1, comprising a diluent, about 3 g β -carotene per 4000 ml of additive, about 5 g oil extract of vetch per 4000 ml of additive, and about 2 ml of jojoba oil per 4000 ml of additive.

20. A coal, the coal comprising an additive for reducing a pollutant emission, the additive comprising:

a plant oil extract;
an antioxidant; and
a thermal stabilizer.

25. The coal of claim 18, wherein the plant oil extract comprises an oil extract of a plant of the *Leguminosae* family.

20. The coal of claim 18, wherein the plant oil extract is selected from the group consisting of oil extract of vetch and oil extract of barley.

21. The coal of claim 18, wherein the plant oil extract comprises chlorophyll.

22. The coal of claim 18, wherein the antioxidant comprises β -carotene.

23. The coal of claim 18, wherein the thermal stabilizer comprises jojoba oil.

24. The coal of claim 18, wherein the thermal stabilizer comprises an ester of
a C20-C22 straight chain monounsaturated carboxylic acid.

25. The coal of claim 18, wherein the plant oil extract comprises oil extract
of vetch, wherein the antioxidant comprises β -carotene, and wherein the thermal
stabilizer comprises jojoba oil.

5 26. The coal of claim 18, further comprising a diluent.

27. The coal of claim 26, wherein the diluent is selected from the group
consisting of toluene, gasoline, diesel fuel, jet fuel, and mixtures thereof.

10 28. The coal of claim 18, wherein the coal comprises a dry powder.

29. The coal of claim 18, wherein the coal comprises a briquette.

30. The coal of claim 18, wherein the coal comprises a suspension of a
powder in a liquid.

15 31. The coal of claim 25, wherein a ratio of grams of plant oil extract of
vetch to grams of β -carotene in the coal is from about 0.25:1 to about 4:1, wherein a
ratio of grams of oil extract of vetch to milliliters jojoba oil in the coal is from about
0.25:1 to about 4:1, and wherein a ratio of milliliters jojoba oil to grams of β -carotene in
the coal is from about 0.25:1 to about 4:1.

20 32. The coal of claim 25, wherein a ratio of grams of plant oil extract of
vetch to grams of β -carotene in the coal is from about 4:3 to about 2:1, wherein a ratio
of grams of oil extract of vetch to milliliters jojoba oil in the coal is from about 2:1 to
about 3:1, and wherein a ratio of milliliters jojoba oil to grams of β -carotene in the coal
is from about 1:3 to about 4:3.

25 33. The coal of claim 25, wherein a ratio of grams of plant oil extract of
vetch to grams of β -carotene in the coal is about 5:3, wherein a ratio of grams of oil
extract of vetch to milliliters jojoba oil in the coal is about 2.5:1, and wherein a ratio of
milliliters jojoba oil to grams of β -carotene in the coal is about 2:3.

30 34. The coal of claim 25, wherein the coal comprises from about 0.1 to about
50 ml of jojoba oil per 1000 kg of coal, from about 0.1 to about 50 g of oil extract of
vetch per 1000 kg of coal, and from about 0.1 to about 100 g of β -carotene per 1000 kg
of coal.

35. The coal of claim 25, wherein the coal comprises from about 1 to about 10 ml of jojoba oil per 1000 kg of coal, from about 2 to about 10 g of oil extract of vetch per 1000 kg of coal, and from about 2 to about 30 g of β -carotene per 1000 kg of coal.

5 36. The coal of claim 25, wherein the coal comprises from about 1.9 to about 5.7 ml of jojoba oil per 1000 kg of coal, from about 3.4 to about 4.3 g of oil extract of vetch per 1000 kg of coal, and from about 4.7 to about 14.3 g of β -carotene per 1000 kg of coal.

10 37. The coal of claim 25, wherein the coal comprises about 1.9 ml of jojoba oil per 1000 kg of coal, about 3.4 g of oil extract of vetch per 1000 kg of coal, and about 4.7 g of β -carotene per 1000 kg of coal.

38. The coal of claim 25, wherein the coal comprises about 5.7 ml of jojoba oil per 1000 kg of coal, about 4.3 g of oil extract of vetch per 1000 kg of coal, and about 14.3 g of β -carotene per 1000 kg of coal.

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